

Appl. No. : 09/916,711
Filed : July 27, 2001

REMARKS

Claims 1-10, 12-15, and 21-33 are pending in this application. Claims 11 and 16-20 had been canceled in a previous amendment.

Interview

Applicants thank Examiner Robert Nasser for the courteous and helpful interviews conducted with Applicants' representative Laura Johnson on August 5, 2004 and August 24, 2004, as summarized above.

Claim Rejection - 35 U.S.C. § 103(a)

Shults et al. in view of Nagata et al.

Claims 1, 2, 5-10, 12-15, and 22-33 have been rejected under 35 U.S.C. §103(a) as obvious over U.S. 6,001,067 ("Shults et al.") in view of U.S. 4,871,440 ("Nagata et al."). Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Shults et al. disclose an implantable enzyme-based glucose monitoring device that utilizes a three electrode system including working, reference, and counter electrodes (col. 9, lines 65-67). Shults et al. does not, however, disclose a three electrode system wherein the electrochemical reactive surface of the counter electrode is greater than the surface area of the working electrode.

Nagata et al. disclose two electrode and three electrode systems. Nagata et al. et al teach that in some circumstances in a three electrode system, the same requirements (interpreted to refer to a larger counter electrode) may be advantageous. However, Nagata et al. also teach that whether or not the counter electrode needs to be bigger in a three electrode system is dependent upon the measurement technique. Namely, when the "density of the object is measured using the balanced current" (interpreted to refer to holding a constant potential, as in amperometry, as in the method taught by Shults et al.) a larger counter electrode is not needed. In contrast, when the "measurement is carried out on the basis of change rate of current (interpreted as referring to varying the potential, such as is done in pulsed amperometry, in contrast to the method taught by Shults), then a larger counter can be advantageous.

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Accordingly, since Nagata et al. teach a larger counter electrode for a three electrode system as advantageous only when the measurement is done based on the change rate of current, and not when the measurement is done at steady state, and since Shults et al. explicitly teach amperometry as the measurement technique, there is no teaching or motivation to combine or modify the teachings of the cited references in such a way as to yield the sensor as presently claimed. A *prima facie* case of obviousness therefore cannot be made, and Applicants respectfully request withdrawal of the rejection.

Claim Rejection - 35 U.S.C. § 103(a)

Shults et al. in view of Nagata et al. and Schulman et al.

Claims 3 and 4 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Shults et al. in view of Nagata et al. and U.S. 6119028 ("Schulman et al."). As discussed above, there is no suggestion or motivation to combine the teachings of Shults et al. and Nagata et al. to yield the sensor as presently claimed. Schulman et al. does not include disclosures sufficient to overcome the deficiencies of Shults et al. and Nagata et al., as discussed above. Accordingly, Applicants respectfully request withdrawal of the rejection.

Claim Rejection - 35 U.S.C. § 103(a)

Shults et al. in view of Nagata et al. and Ward et al.

Claim 21 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Shults et al. in view of Nagata et al. and 6,119,028 ("Ward et al."). As discussed above, there is no suggestion or motivation to combine the teachings of Shults et al. and Nagata et al. to yield the sensor as presently claimed. Ward et al. does not include disclosures sufficient to overcome the deficiencies of Shults et al. and Nagata et al., as discussed above. Accordingly, Applicants respectfully request withdrawal of the rejection.

Examiner's Comments on Applicants' Arguments Filed April 26, 2004

The Examiner asserts that in the first paragraph of page [sic] 2, Nagata teaches that in some circumstances, the same requirements (larger counter electrode) is necessary in a three electrode system. Therefore, it is the Examiner's position that ample motivation exists to make the combination.

Applicants disagree with the Examiner's interpretation of the statements of the paragraph of col. 2, lines 3-40. Applicants assert that the paragraph is directed to the use of a bias supply circuit for the reference electrode of a three electrode system, such that the reference electrode

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and counter electrode of the three electrode system have the same relationship as that of a working electrode and a counter electrode in a two electrode system. See col. 2, lines 13-18. While this electrode system provides greater accuracy in measuring concentration ("density") using the rate of change of the current, it is described as an "unfavorably complicated" structure. See col. 2, lines 19-20.

Accordingly, the paragraph of col. 2, lines 3-40 neither teaches nor suggests the use of a counter electrode larger than a working electrode in a three electrode system.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns that might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number below.

Respectfully submitted,

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Dated: October 14, 2004

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